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| 09/542,973 | 04/04/2000 | Mathew O. Anderson | LIT-PI-499 | 5656 |

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EXAMINER

PIZIALI, JEFFREY J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2673

DATE MAILED: 01/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/542,973

Applicant(s)

ANDERSON ET AL.

Examiner

Jeff Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 24-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 24-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-16 and 24-37 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Amended independent claims 1 and 24 (see paper no. 8, filed October 21, 2002) each newly recites the limitation that "the zone structure represents the operator commands in a format independent of any of the one or more input devices." Similarly, amended independent claim 9 newly recites the limitation that "the zone structure represents the movement commands in a format independent of the selected input device and the one or more associated telepresence devices." Although the specification describes conversion of raw data into a zone structure (see page 13, for instance), the subject matter of "format independence" has not been described in the pending specification.

Claims 2-8, 10-16, and 25-37 are further rejected under 35 U.S.C. 112, first paragraph, due to their respective dependencies upon rejected base claims 1, 9, and 24 (see above paragraph).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6-16, 24-34, 36, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Diner et al. (US 5,182,641).

Regarding claim 1, Diner discloses a telepresence system for allowing an operator [Fig. 1, 19] to interact with a remote operating environment, the system comprising: one or more input devices [Fig. 1, 21], wherein the one or more input devices produce raw data representative of operator commands; an input conversion module for converting the raw data into a zone structure wherein the zone structure represents the operator commands in a format independent of any of the one or more input devices; one or more device modules corresponding to one or more telepresence devices [Fig. 1, 13'-17'], the one or more device modules for converting the zone structure into telepresence device commands specific to the one or more telepresence devices, the telepresence device commands corresponding to at least a portion of the operator commands; and a configuration module for associating a specific one of the one or more input devices which generated the zone structure with a specific one of the one or more telepresence devices which responds to the telepresence device commands resulting from the zone structure (see Column 4, Line 15 - Column 5, Line 37).

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Regarding claim 2, Diner discloses one or more of a headset, keyboard, mouse, and joystick (see Column 4, Line 53 - Column 5, Line 2).

Regarding claim 3, Diner discloses only one of the input devices is permitted to produce raw data at a time (see Column 5, Lines 13-24).

Regarding claim 4, Diner discloses one input device is capable of controlling plural telepresence devices (see Column 4, Line 53 - Column 5, Line 2).

Regarding claim 6, Diner discloses one or more of a stereo camera set, a zoom camera, a pan and tilt device, a slider bar, and a robot (see Column 9, Line 40 - Column 10, Line 8).

Regarding claim 7, Diner discloses the pan and tilt device is connected to the stereo camera set, and is capable of orienting it (see Column 9, Line 40 - Column 10, Line 8).

Regarding claim 8, Diner discloses the pan and tilt device is connected to the zoom camera, and is capable of orienting it (see Column 9, Line 40 - Column 10, Line 8).

Regarding claim 9, this claim is rejected by the reasoning applied in the above rejection of claim 1, furthermore Diner discloses receiving raw data representative of movement commands from the selected input device; converting the raw data into a zone structure, wherein the zone structure represents the movement commands in a format independent of the selected

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input device and the one or more associated telepresence devices; when the selected input device is selectively associated with the one or more associated telepresence devices, processing the zone structure with a device module corresponding to each of the one or more associated telepresence devices to obtain telepresence device commands corresponding to at least a portion of the movement commands for each of the associated telepresence devices; and transmitting the movement commands to the associated telepresence devices (see Column 4, Line 15 - Column 5, Line 37).

Regarding claim 10, this claim is rejected by the reasoning applied in the above rejection of claim 2.

Regarding claim 11, this claim is rejected by the reasoning applied in the above rejection of claim 1.

Regarding claim 12, Diner discloses representing speeds and directions (see Column 4, Line 15 - Column 5, Line 37).

Regarding claim 13, Diner discloses the associated telepresence devices only respond to portions of the zone structure that correspond to the axes of the associated telepresence devices (see Column 4, Lines 41-52).

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Regarding claim 14, this claim is rejected by the reasoning applied in the above rejection of claim 1.

Regarding claim 15, Diner discloses executing the movement commands by the associated telepresence devices (see Column 4, Line 41 - Column 5, Line 24).

Regarding claim 16, Diner discloses computer executable instructions (see Column 4, Line 41 - Column 5, Line 24).

Regarding claim 24, this claim is rejected by the reasoning applied in the above rejection of claims 1 and 9; furthermore, Diner discloses one or more of the telepresence devices provide a visual representation [Fig. 1, 27-30] of the operating environment; and a communication link [i.e. cables and busses] for transmitting the movement commands to the telepresence devices (see Column 4, Line 15 - Column 5, Line 37)..

Regarding claim 25, this claim is rejected by the reasoning applied in the above rejection of claim 6-8.

Regarding claim 26, Diner discloses providing stereo vision (see Column 7, Lines 32-44).

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Regarding claim 27, this claim is rejected by the reasoning applied in the above rejection of claims 9 and 12.

Regarding claim 28, this claim is rejected by the reasoning applied in the above rejection of claim 4.

Regarding claim 29, Diner discloses a configuration module [Fig. 1, 18] (see Column 4, Line 53 - Column 5, Line 24).

Regarding claim 30, Diner discloses one or more views, wherein each view defines the telepresence devices controlled by a single input device (see Column 5, Line 25 - Column 6, Line 16).

Regarding claim 31, Diner discloses selecting a different view (see Column 5, Lines 25-37).

Regarding claim 32, this claim is rejected by the reasoning applied in the above rejection of claim 4.

Regarding claim 33, this claim is rejected by the reasoning applied in the above rejection of claim 1.

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Regarding claim 34, Diner discloses providing depth perception (see Column 1, Lines 31-41).

Regarding claim 36, Diner discloses controlling the telepresence devices without the use of the operator's hands (see Column 4, Line 53 - Column 5, Line 2).

Regarding claim 37, Diner discloses a communication link [i.e. cables and busses], wherein the telepresence device commands are received by the one or more telepresence devices over a communication link such that the one or more input devices are configured to control the one or more telepresence devices, wherein the telepresence devices provide the operator with one or more visual representations [Fig. 1, 27-30] of the operating environment (see Column 4, Line 15 - Column 5, Line 37).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diner et al. (US 5,182,641).

Regarding claim 5, Diner does not expressly disclose a wireless communications link. However, the substitution of cable communication links with wireless ones was well known and

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commonly understood at the time of invention, in the art of data transmission/reception.

Therefore, it would have been obvious to one skilled in the art at the time of invention to use wireless communication links in place of Diner's cables (see Column 5, Lines 9-11), so as to alleviate the clutter of wires.

Regarding claim 35, this claim is rejected by the reasoning applied in the above rejection of claim 5.

Response to Arguments

7. Applicants' arguments filed October 21, 2002 have been fully considered but they are not persuasive. The applicants contend the cited prior art of Diner et al. (US 5,182,641) fails to teach an input conversion module for converting the raw data into a zone structure in a format independent of any of the one or more input devices; and further fails to teach device modules corresponding to a telepresence device which converts device-independent zone structure into telepresence device commands specific to the corresponding telepresence device. The examiner respectfully disagrees. Diner explicitly discloses that system controller [Fig. 1, 18] receives all inputs and commands [Fig. 1; 24 & 25, for instance] from a human operator [Fig. 1, 19] and converts them into action (see Column 4, Line 53 - Column 5, Line 11). As evidenced by Figure 1, Diner's hand controllers [Fig. 1; 24 & 25], voice control and other inputs [Fig. 1; 21], system controller [Fig. 1; 18], and hand-controller controller [Fig. 1; 26] all operate independently of one another. Furthermore, the input/command data is transferred along cables and busses,

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inherently separating each of the independent telepresence system components from one another (see Column 5, Lines 9-56).

Conclusion

8. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



January 7, 2003



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